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ABSTRACT

Developed for use by teacher educators or state staff, this teaching packet provides preservice or inservice training to teachers and prospective teachers on how to use the Illinois Core Curriculum in Agriculture. (It is recommended that copies of the Illinois core materials be available to the students.) Three problem areas are included: Orientation to the Illinois Core Curriculum in Agriculture, Using the Core Curriculum to Develop a Teaching Plan, and Using the Core Curriculum to Develop Courses of Study. Each problem area includes all or most of the following components: teacher educator's guide (suggested objectives, suggested interest approaches, anticipated problems and concerns, suggested learning activities, application procedures, evaluation, and references), information sheets, worksheets, transparencies, and class handouts. The recommended time for teaching these problem areas is during the "methods" course prior to the student teaching experience or as part of an inservice workshop or seminar for teachers currently employed. (YLB)

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Teacher Education
Packet for Illinois
Core Curriculum
in Agriculture

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AND TECHNICAL
EDUCATION

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Department of Adult, Vocational and Technical Education
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Product Abstract

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| ☒ 01 Agricultural Education | ☐ 10 Industrial Art Education |
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| ☐ 07 Health Occupations Education | ☐ Career Education |
| ☐ 09 Home Economics Education | ☐ Other (Specify <u> </u>) |

8. Education Level:

- | | | | |
|---|--------------------------------|---|--------------------------------|
| ☐ Pre-K thru 6 | ☐ 7-8 | ☐ 9-10 | ☐ 11-12 |
| ☐ Post-secondary | ☐ Adult | ☒ Teacher (Preservice) | |
| ☐ Administrator (Preservice) | | ☒ Other (Specify <u>Teacher (Inservice)</u>) | |

9. Intended for Use By:

- | | | |
|---|--|--|
| ☐ Student | ☐ Classroom Teacher | ☐ Local Administrator |
| ☒ Teacher Educator | ☐ Guidance Staff | ☐ State Personnel |
| ☐ Other (Specify <u> </u>) | | |

10. Student Type:

- | | | |
|--|--|---|
| ☒ Regular | ☐ Disadvantaged | ☐ Handicapped |
| ☐ Limited English Proficiency | | ☐ Other (Specify <u> </u>) |

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16. General Description: (State the general objective and suggested method in use. Summarize the content and tell how it is organized. Continue on back of this sheet or on another sheet, if necessary.)

(General Description)

This teaching packet has been prepared for teacher educators or state staff to use in providing preservice or inservice training to teachers and prospective teachers on how to use the Illinois Core Curriculum in Agriculture. Three problem areas are included in the packet as follows:

1. Orientation to the Illinois Core Curriculum in Agriculture.
2. Using the Core Curriculum to Develop Course of Study.
3. Using the Core Curriculum to Develop a Teaching Plan.

The term "student" used in this packet refers to teachers or prospective teachers who may be enrolled in an undergraduate course in agricultural education at a university or in an inservice workshop or seminar for teachers. Teacher educators who plan to use this packet should have copies of the Illinois Core materials available for student use. Other reference materials needed to teach the problem areas are listed in the Teacher Educator's Guides.

The scope of the three problem areas actually goes beyond how to use the Illinois Core Curriculum in Agriculture. Instructional material on how to develop courses of study, write teaching plans, and program planning procedures can be taught as an integral part of this unit.

Each problem area includes all or most of the following components?

1. Teacher Educator's Guide
 - a. Suggested objectives
 - b. Suggested interest approaches
 - c. Anticipated problems and concerns
 - d. Suggested learning activities
 - e. Application procedures
 - f. Evaluation
 - g. References
2. Information Sheets
3. Worksheets
4. Transparencies
5. Class Handouts

The recommended time for teaching these problem areas is during the "Methods" course prior to the time when students begin their student teaching experience. Or, in the case of teachers currently employed, the instruction could be provided as a part of an inservice workshop or seminar.

17. Person Completing this Abstract: _____

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TEACHER EDUCATOR'S GUIDE

I. Unit: Core Curriculum

II. Problem area: Orientation to the Illinois Core Curriculum in Agriculture.

III. Objectives: At the completion of this problem area, students will be able to:

1. Define in their own words and explain the core curriculum concept.
2. Recognize the need for a core curriculum in agriculture.
3. Understand the purposes of the Illinois Core Curriculum.
4. Identify the component parts included in the Illinois Core Curriculum.
5. Name five recommended procedures for using the core curriculum.

IV. Suggested interest approaches:

1. Promote class discussion and interest by developing a list of the general characteristics (sex, work experience, career goals, etc.) of high school students enrolled in vocational agriculture programs.
2. Summarize the general characteristics of the prospective teachers in the class. After they have identified their areas of strengths and weaknesses, compare their list against the types of students they will be teaching in high school vocational agriculture.
3. Develop class discussion around how high school teachers can potentially meet all their students career needs, given the limitations of a one-teacher agriculture department.
4. Begin the problem area by raising the following questions:
 - a. How many of you have heard about the core curriculum in agriculture?
 - b. Do you know what it is?
 - c. How would you define a core curriculum?

V. Anticipated problems and concerns:

1. What is a core curriculum?
2. Why is a core curriculum needed?

3. What are the purposes of the Illinois Core Curriculum?
4. What units are included in the Illinois Core?
5. What problem areas are included in the Illinois Core?
6. What is the difference between the rural core and the metro core?
7. What are the components of a core problem area?
8. What is the color coding system used in the core?
9. What is the page numbering system used in the core?
10. How can I obtain a copy of the core curriculum materials?
11. What method was used to determine the content of the core curriculum?
12. What major references do I need to use the Illinois core materials?
13. How should the core materials be used? What are some possible misuses of the core?

VI. Suggested learning activities:

1. Begin the instructional phase of this problem area with the following steps:
 - a. Conduct an interest approach.
 - b. Assist students in the identification of goals and objectives.
 - c. Have students identify their problems and concerns.
 - d. Identify tentative answers to their problems and concerns through class discussion and from references and information supplied by the instructor.
 - e. Use selected transparencies to summarize major ideas and concepts.
2. Distribute copies of the core curriculum materials and let students become familiar with them. Explain the format, page numbering system and color coding method used in the core materials.
3. If students have been requested to read the journal articles included with this problem area, raise the following questions:

- a. What is meant by the following terms?
 - (1) core curriculum
 - (2) competency
 - (3) competency-based curriculum
- b. What are the major characteristics of a "traditional curriculum" and a "competency-based core curriculum?"
- c. What is the difference between the core curriculum and specialized instruction?

For what groups of students are each of these programs designed to serve?
- d. Why do we need a core?
- e. How specialized should the agriculture curriculum be at the 11th and 12th grade levels?
4. Trace the history of the core curriculum. Include the following in your presentation:
 - a. Core curricula have been developed in Oklahoma, Kansas, Indiana, Nebraska and other states.
 - b. Development of core curriculum in Illinois started in 1980 with a project funded by Illinois State Board of Education.
 - c. Materials have been developed and are available from Vocational Agriculture Service.
5. Inform class that copies of the Core materials are available to them for review and study.

VII. Application procedures:

1. The main purpose of this problem area is to orient prospective teachers to the concept of a core curriculum in agriculture.
2. This problem area should also familiarize prospective teachers with the Illinois Core Curriculum materials.
3. Results of instruction in this problem area should lead to increased student interest in the core materials and their use.

VIII. Evaluation:

1. Evaluate student discussion and performance on assigned topics and activities
2. No test questions are included in this problem area since the main purpose of the problem area is to create student interest and knowledge of the Illinois Core Curriculum.

IX. References:

1. Illinois Rural Core Curriculum Notebooks
2. Illinois Metropolitan Core Curriculum Notebooks
3. Selected Core Curriculum Transparencies
4. Articles from April, 1980 issue of The Agricultural Education Magazine:
 - a. Christiansen, James. "What is a Competency-Based Core Curriculum in Vocational Agriculture?"
 - b. Amberson, Max. "The Competency-Based Core Curriculum: Innovative and Accountable."
 - c. Marvin, Paul. "Pros and Cons....Should we Adopt a State-wide Curriculum?"
6. Hemp, Paul E., "Building a Case for the Core Curriculum in Agriculture," The Journal of the American Association of Teacher Educators in Agriculture, Vol. XXI, No. 3, November, 1980.

INFORMATION SHEET
PURPOSES OF THE CORE CURRICULUM

The primary purposes of the Illinois Core Curriculum are as follows:

1. Encourage teachers to restructure the vocational agriculture program at the high school level.
 - a. Reduce the number of courses and the number of semester courses.
 - b. Emphasize the ag. supply/ag. production as the basic program for one-teacher departments.
 - c. Encourage a cross-sectional approach in developing courses of study.
2. Provide teachers with the basic instructional materials and aids needed to teach selected problem areas during a four-year instructional program.
3. Improve teacher performance, especially among younger teachers and teachers with limited agriculture background. The core curriculum should help teachers improve:
 - a. Program planning skills
 - b. Lesson planning skills
 - c. Problem solving skills
 - d. Student evaluation skills
4. Increase student learning in the following ways:
 - a. Relating S.O.E. and FFA to the rest of the instructional program.
 - b. Increasing the number and types of teaching materials and teaching techniques used in the instructional program.
 - c. Improving evaluation procedures used to assess student learning.

INFORMATION SHEET
BENEFICIAL EFFECTS OF THE CORE CURRICULUM

1. Provides teachers with new or innovative ways of teaching certain areas.
2. Reduces preparation time.
3. Helps teachers integrate FFA and S.O.E.P. into the instructional program.
4. Helps administrators see what a program might be like.
5. Allows for local needs.
6. Helps the floundering beginning teacher decide what to teach and how to teach it.
7. Helps standardize instruction throughout the state.
8. Serves as a source of new ideas for established teachers.
9. Gives community college staff some basis to judge what incoming freshmen have been taught.
10. Reduces excessive use of semester courses.

INFORMATION SHEET

CORE CURRICULUM DEFINITION

The Council for Basic Education in Washington, received from a school superintendent the following definition of a "core curriculum" (author unknown):

"A core curriculum is one in which the children bring apples to school and eat and plant the cores in the school grounds. They watch them sprout and grow into leaves and blossoms and then fruit. This is Science. They paste pieces of bark and twigs and leaves on paper and they paint pictures of the apples in a dish. This is Art.

The children sit around under the apple trees singing 'In the Shade of the Old Apple Tree.' This is Music. The story of Johnny Appleseed is told to them. This is Library Study. They climb up in the tree and pick the apples. This is Physical Education.

They count the apples, 'taking away' the wormy ones. This is Arithmetic. In their own words, they tell what a tree is and what they felt when they saw the cores turn into trees. They also write letters to the National Apple Growers Association. This is Language Arts. The gifted children do enrichment research by reading Kilmer's 'Trees' or by finding out about Isaac Newton, the Apple of Discord, the Garden of Eden, William Tell and other apple-y events.

They learn such words as arbor, l'arbe, apfel, baum, manzana. This is Foreign Languages.

The students build boxes to store the apples. This is Industrial Arts. Other students bake them and sauce them and pie them. This is Homemaking. Then everyone eats them and learns about their nutritional value. This is Health Education.

These activities have been performed without a textbook or a workbook.

When all the apples are gone, they take the cores once again and plant them in the school grounds and watch them grow and flower and fruit. Pretty soon, you cannot see the school for the trees. This is called the End of Education."

Adapted from an article from
New York Herald Tribune

DEFINITIONS

Core Curriculum (common learnings):

Learnings in agriculture believed to be essential for all agriculture students regardless of ability, background, or vocational plans.

Non-core (specialized learnings):

Learnings in agriculture which are specific for a certain group of students or for certain individuals.

A four year curriculum might include 60% core learnings and 40% specialized learnings.

WHY DO WE NEED A CORE CURRICULUM IN ILLINOIS?

- 1. High teacher turnover**
- 2. Low teacher morale**
- 3. Increase in number of teachers with provisional certificates**
- 4. Increase in number of teachers with inadequate background in:**
 - a. FFA**
 - b. Vo. Ag.**
 - c. Work experience**
- 5. Heavy teaching loads**
- 6. Lack of planning time**
- 7. Difficult to know all taxonomic areas of agriculture**
- 8. Increase in number of students without farm background**
- 9. Proliferation of semester courses**
- 10. Separation of SOEP and FFA from rest of the program**

PURPOSES OF THE CORE CURRICULUM

- 1. Improve program structures and course sequences**
 - a. Reduce number of courses offered**
 - b. Reduce number of semester courses**
 - c. Emphasize Ag. Supply/Ag. Production**
 - d. Promote cross-sectional approach**
- 2. Provide teachers with instructional materials and teaching aids**
- 3. Improve teacher performance in following areas:**
 - a. Program planning**
 - b. Lesson planning**
 - c. Problem solving**
 - d. Student evaluation**
- 4. Increase student learning through:**
 - a. Relating SOE and FAA to rest of instructional program**
 - b. Increasing the number and types of materials and techniques used**
 - c. Improving student evaluation procedures**

WHAT IS THE ILLINOIS CORE CURRICULUM ?

The Illinois Core Curriculum is a listing of those units and problem areas from which a local core curriculum could be developed in either a rural or an urban community.

WHAT IS THE RURAL AGRICULTURE PROGRAM CORE ?

The Rural Agricultural Program (RAP) Core is designed for students enrolled in programs which are oriented towards Agricultural Production and Agricultural Supply and Service Occupations.

WHAT IS THE METROPOLITAN PROGRAM CORE ?

The Metropolitan Agricultural Program (MAP) Core is designed for students enrolled in urban agricultural programs which are oriented towards horticulture and to a lesser degree towards urban animal science, conservation and forestry.

CORE CURRICULUM PROGRAM

Components of an Instructional Packet

1. Teachers' Guide

- a. Suggested interest approaches**
- b. Objectives**
- c. Problems and concerns**
- d. Suggested teaching activities**
- e. Application to FFA, SOE, etc.**
- f. Evaluation procedure**
- g. References and aids**

2. Information Sheets

3. Assignment Sheets or Worksheets for Students

4. Job Sheets

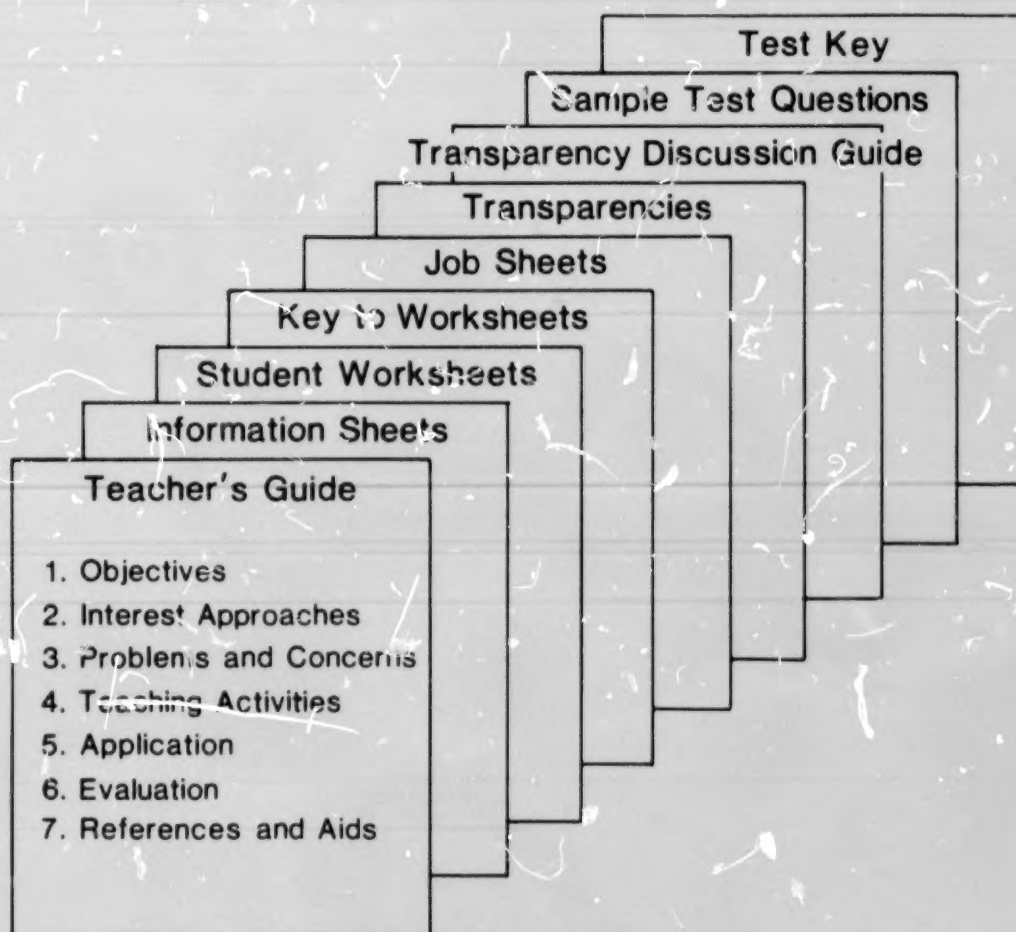
5. Transparencies

6. Transparency Discussion Guide

7. Sample Test Questions with Teacher's Key

COMPONENTS OF AN INSTRUCTIONAL PACKET

ILLINOIS CORE CURRICULUM



WHAT IS THE TEACHER'S GUIDE?

The Teacher's Guide is a resource unit for the teacher to use in developing a teaching plan for a problem area. The parts of the teacher's guide are as follows:

- 1. Student Objectives**
- 2. Suggested Interest Approaches**
- 3. Anticipated Problems and Concerns of Students**
- 4. Suggested Learning Activities and Experiences**
- 5. Application Procedures**
- 6. Evaluation**
- 7. References and Aids**

WHAT IS THE CORE CURRICULUM MATERIALS NOTEBOOK?

The Core Curriculum Materials Notebook is a collection of instructional packets designed to provide teachers with instructional materials and teaching ideas to use in teaching the core curriculum units and problem areas. Each problem area includes some or all of the following components:

- 1. Suggestions to the Teacher**
- 2. Teacher's Guide**
- 3. Information Sheets**
- 4. Student Worksheets and Keys**
- 5. Demonstrations**
- 6. Job Sheets**
- 7. Transparency Masters**
- 8. Transparency Discussion Guides**
- 9. Sample Test Questions and Keys**

TEACHER EDUCATOR'S GUIDE

- I. Unit: Core Curriculum
- II. Problem area: Using the Core Curriculum to Develop a Teaching Plan
- III. Objectives: At the conclusion of this problem area students will be able to:
 1. Identify the essential parts of a problem area teaching plan.
 2. Explain the steps involved in developing a teaching plan.
 3. Demonstrate how to prepare a teaching plan which is based on a core curriculum problem area.
- IV. Suggested interest approaches:
 1. Develop class interest and discussion by having students identify what they think the major parts of a teaching plan should be.
 2. Distribute various types of teaching plans and discuss the advantages and disadvantages of each.
 3. Use selected information sheets and the core curriculum materials to promote discussion on localizing the core curriculum when developing teaching plans.
 4. Motivate students by pointing out that written teaching plans are required by cooperating teachers and university supervisors for the student teaching program, and are essential for effective teaching.
- V. Anticipated problems and concerns:
 1. What is a teaching plan?
 2. What are the parts of a teaching plan?
 3. Why should I prepare written teaching plans?
 4. How can I use the core materials when writing teaching plans?
 5. How can the instructional materials and teaching aids contained in the core problem areas be used when developing teaching plans?
 6. What major resources do I need to purchase so I can use the core materials?
 7. What is an interest approach? Why is it important?

8. How should student performance objectives be stated?
9. What should I include in the "situation" section of a teaching plan?
10. What lead questions should a teacher use to draw objectives and problems from a class?
11. How much detail should be included in a teaching plan?
12. How should sample test questions included in the core curriculum materials be used?

VI. Suggested learning activities:

1. Distribute Worksheet "Parts of a Teaching Plan" or use the model currently used by your local department. Compare this example with the items listed from the students' discussion during the interest approach.
2. Conduct class discussion to answer students' problems and concerns. Use selected transparencies and examples from the core materials to assist students in finding solutions to their questions.
3. Select a core problem area, determine the major parts of a teaching plan outline, then demonstrate with the class members how to write a teaching plan with the core materials.
4. Select a core problem area and prepare a daily teaching plan and present it to the class. After the presentation, explain to the class the process you used to select materials from the core and how you modified and localized the core content.
5. Have students prepare a mini-daily teaching plan using the core materials and references. Let them peer teach their lesson to the class. Follow up with discussion on how the core materials assisted in determining the teaching method, subject content and evaluation technique.
6. Have students prepare a problem area teaching plan using core materials. Exchange plans within the class and have students revise each other's plan.

VII. Application procedure:

1. The main purpose of this problem area is to develop students' ability to use and localize the core materials when planning and writing teaching plans.
2. Students should also develop the ability to modify the core materials and adapt them to their style of teaching.

3. Students should apply the knowledge learned in this problem area by preparing three or more problem area plans for use during student teaching.

VIII. Evaluation:

1. Collect and evaluate students' teaching plans.
2. Evaluate students' ability to prepare and present a daily teaching plan.
3. Evaluate student discussion and performance on other assigned activities.

IX. References and aids:

1. Illinois Rural Core Curriculum Notebooks
2. Illinois Metro Core Curriculum Notebooks
3. Rural and Metro Program Planning Guides
4. Transparencies
5. Worksheets

INFORMATION SHEET

DAILY PLANNING

The well-prepared teacher has half the battle won. Teachers who believe that their work does not need planning are being unfair to their students and to themselves.

A. The purposes of the daily lesson plan are many. It should aid the teachers to:

1. Identify and determine the specific things to be accomplished through the lesson - objectives.
2. Make provisions for arousing student interest.
3. Outline how and when they will do what.
4. Properly prepare the materials and equipment they are to use.
5. Utilize their ingenuity in developing problems and situations which are related to the environment of the student and the community (farming, specific supervised gardening projects, FFA activities, etc.)
6. Provide for individual student differences.
7. Carry their instruction through to the final achievement of actual doing or problem solving by the student.
8. Evaluate student accomplishment.
9. Evaluate teaching accomplishment.

B. The form of the daily plan should provide for the following.

1. Identification.
 - a. By class in which to be taught.
 - b. By unit.
 - c. By specific problem area or job.
2. Time of year to be taught (for total planning).
3. Length of period or periods (time).
4. A listing of specific objectives to be accomplished.
 - a. Facts pupils should know.
 - b. Things pupils should be taught to do.
5. A listing of the equipment, materials, books and supplies which will be needed.
6. A complete outline for the steps in teaching to be accomplished during this problem area.
 - a. Preparation of students.
 - b. Presentation to and with students.
 - c. Application by students.
 - d. Follow-up or testing (or summary).

7. A time table for the teacher.
8. List of references used by the teacher.

* * * * *

The daily plan makes for more effective teaching.

The well-prepared daily plan makes classroom teaching easier.

The daily plan is made by teachers for their use.

The daily plan is not a speech - it is a guide.

It must be revised from time to time - it must be flexible - it must be used.

INFORMATION SHEET
HOW TO GET READY TO INSTRUCT

1. Have a time table -

Decide when it should happen.

Decide who should do it.

2. Break down the job -

List principal steps.

Pick out the key points.

3. Have everything ready -

The right equipment, materials, and supplies.

4. Have the work place properly arranged -

Just as the worker will be expected to keep it.

INFORMATION SHEET
PERMANENT LEARNING

How do you accomplish permanent learning?
Why do you remember your social security number?
How do you remember how to shear sheep?
What happened the day you learned how to tie a bowline?

Wouldn't it be exciting to teach everyone of your students a new skill or principle every day . . . and have them remember it permanently . . . for the rest of their lives?

Here are some suggestions:

1. Let them apply it.
2. Let them practice it.
3. Let them test it.
4. Let them give examples of it.
5. Let them review it the next day, next week, etc.
6. Let them write it in their notebooks.
7. Let them see you demonstrate it.
8. Let them explain the value of it (success, jobs, money).
9. Let them see the safety in it.
10. Let them see the industry using it.
11. Let them hear a successful producer say it.
12. Let them see it on a test.
13. Let them see it on the chalkboard.

*with a star by it **WRITTEN BIG AND BOLD**
underlined
in color

14. Let them hear you say it.

loud and clear
with emotion - fear, love, pride, etc.

15. Let them hear comparisons, examples and analogies of it.

together
aloud
in their own words

17. Let them be rewarded for "learning" it.
18. Let them learn it with all the A.V. aids you can buy, find, make and borrow.
19. Let them teach it to someone else.
20. Let them use all their senses as they learn it.
21. _____
22. _____
23. _____

THE PARTS OF A TEACHING PLAN

(Problem Area Approach)

I. Unit:

II. Problem Area:

III. Situation:

A.

B.

C.

D.

IV. Teacher Objectives:

A.

B.

C.

D.

V. Teaching Procedures:

A. Interest approach:

1.

2.

3.

4.

B. Anticipated group objectives:

1. Lead questions to draw student objectives.

a.

b.

c.

2. Anticipated student response.

- a.
- b.
- c.
- d.

C. Anticipated problems and concerns of students:

1. Lead question to draw problems from students.

- a.
- b.

2. Anticipated problems and concerns.

- a.
- b.
- c.
- d.
- e.
- f.
- g.
- h.
- i.
- j.
- k.
- l.

D. Steps in solving the problems:

- 1.
- 2.
- 3.
- 4.

E. Special events and activities:

- 1.
- 2.
- 3.
- 4.

F. Evaluation and applications:

- 1.
- 2.
- 3.
- 4.

G. Reference and teaching aids:

- 1.
- 2.
- 3.
- 4.

STUDENT WORKSHEET
DAILY TEACHING PLAN

I. Unit:

II. Problem Area:

III. Teaching Objectives:

IV. Teaching Procedures:

A. Interest Approach

B. Anticipated Student Problems and Concerns

C. Special Events or Activities

V. Summary

VI. References and Teaching Aids:

STUDENT WORKSHEET

DAILY PLAN FORM

COURSE _____

_____ HIGH SCHOOL
VOCATIONAL AGRICULTURE DEPARTMENT

UNIT _____ PROBLEM AREA _____

References: 1. _____

2. _____

3. _____

4. _____

5. _____

Teaching Aids: 1. _____ 2. _____

3. _____ 4. _____

SITUATION:

TEACHER OBJECTIVES:

INTEREST APPROACH TO PROBLEM AREA:

LABORATORY INSTRUCTION, DEMONSTRATIONS AND EXPERIMENTS:

ANTICIPATED STUDENT OBJECTIVES:

STUDENT WORKSHEET
OUTLINE FOR SOLVING STUDENT
PROBLEMS AND CONCERNS

Course _____

VOCATIONAL AGRICULTURE DEPARTMENT
_____ HIGH SCHOOL

STUDENT PROBLEMS

TEACHING TECHNIQUES

WORKSHEET
DAILY TEACHING PLAN FORMAT

Name _____

Problem area title _____

I. Identification:

- a. Unit _____
- b. Problem area _____
- c. _____ lesson in this unit.
- d. Class _____ E. Best month _____ F. Length _____ Min.

II. Specific Objectives:

III. Equipment, Materials, Supplies, Books, Bulletins or Resources needed for this lesson:

IV. Teaching Procedure:

a. Introduction:

Link:

Motivation:

Overview:

b. Presentation:

Subject Matter

Teaching Methods

INFORMATION SHEET

TEACHING PLAN FORMAT - AGRICULTURAL EDUCATION

I. IDENTIFICATION:

- A. Course _____
B. Unit _____
C. Problem area _____
D. Class _____ E. Best Month _____ F. Length of period _____

II. SPECIFIC OBJECTIVES -- (for this lesson):

- A. What the student should know:
B. What the student should be able to do:

III. EQUIPMENT, MATERIALS, BOOKS, BULLETINS OR RESOURCES NEEDED -- (for this problem area):

IV. TEACHING PROCEDURE:

- A. Introduction - Preparation of the students -- Getting class ready to receive and use information (specific plans for doing the following):

1. Link - (to previous lesson, supervised practice, agricultural experiences, etc.)
2. Motivate - (stimulate, arouse curiosity, stress importance, occupational opportunities, etc.)
3. Overview - (brief outline of what is to happen, to be solved, studied, etc.)

- B. Presentation - (of the specific problem, job, information, understanding, etc.):

- i. Outline of Subject Matter - (information, facts, questions and answers) needed for reference by the teacher, or for outlining purposes on the chalkboard, etc.)

*Keep method separate from subject matter.

1. *Teaching Methods - of specific techniques and materials to be used in teaching - specific provision for student involvement. Examples: teacher-led discussion, student demonstration, directed study, use of worksheets, problems or guides, chalkboard use, flip chart presentation, notebook assignment, etc.

C. Application - (applying information to the problem, practicing the skills, arriving at possible course of action, determining desirable goals, etc.):

1. Outline of key facts or subject matter - to be remembered and/or "given back" by the students in use or application)

1. Teaching Methods - (procedures to be used and followed with the students - see B1, above)

D. Summary - (a quick review, discussion, quiz, contest, problem, or other method of summarizing the lesson of the day:

1. See outline of "Key Facts" above (C1)

1. Notes on planned procedure.

V. LIST OF REFERENCES: used by the teacher.

INFORMATION SHEET
OUTLINE OF A TEACHING PLAN FOR ADULT CLASS

I. Unit or Course:

II. Problem Area:

III. Situation:

1.

2.

3.

4.

IV. Objectives:

1.

2.

3.

4.

V. Teaching Procedures:

A. State and introduce problem area.

B. Analyze problem by asking questions pertaining to it.

C. Ask questions to help group evaluate present practices, past experiences and results obtained.

D. Ask questions to help group determine standards and develop objectives.

E. Attempt to solve problems by -

1. Calling for experiences of group. Emphasize what should be done, not what is being done at this point.

2. Teacher "feeding" information into a discussion. Teacher presents scientific data, results obtained by persons not in class, etc.

3. Formulating conclusions.

F. Decide on a plan of action (approved practices).

G. Present a preview of what will be studied at next meeting.

STUDENT WORKSHEET
CURRICULUM PLAN

(Class)

(Type of Department)

[illegible]

INFORMATION SHEET DAILY TEACHING PLAN

- I. Unit: Agriculture Pest Control
- II. Problem Area: Controlling mice and rats.
- III. Objectives: At the close of this problem area students will be able to--
 1. discuss the extent of damage and losses due to mice and rats
 2. identify means of control
 3. gain experience with mice control devices

IV. Equipment Needed: -- from Farm King

1. rubber mouse
2. mouse traps -- each kind
3. d-Con
4. film (mouse control)

V. Motivation:

1. Show mouse hole in box (cover teaching aids, reveal one at a time to give hints to answer)
2. Show grain damaged by mice
3. Move mouse across table to box

VI. Teaching procedures:

1. Introduction:

- a. Ask--"What is one of the biggest pests around farms and other places of business?"

2. Presentation:

- a. Info about extent of damage
 1. Buildings -- holes walls concrete
 2. Ground -- electric wiring dig holes undermine floor
 3. Livestock -- droppings urine eat
 4. Stored grain -- holes in walls droppings urine eat

Teaching Method:

- chalk board/discussion
- show board with mouse holes
- show feed
- show grain

5. Humans -- scare you make you mad droppings urine eat--food, clothes, etc.	show food box with mouse hole
3. Show film (d-Con)	after film--review specific points
VII. Application:	
1. Set traps--each type of mouse and rat traps	each student sets traps
2. Set d-Con	read directions
VIII. Evaluation:	
1. Test traps	each student sets trap properly

WORKSHEET

ARE YOU READY TO TEACH?

Check

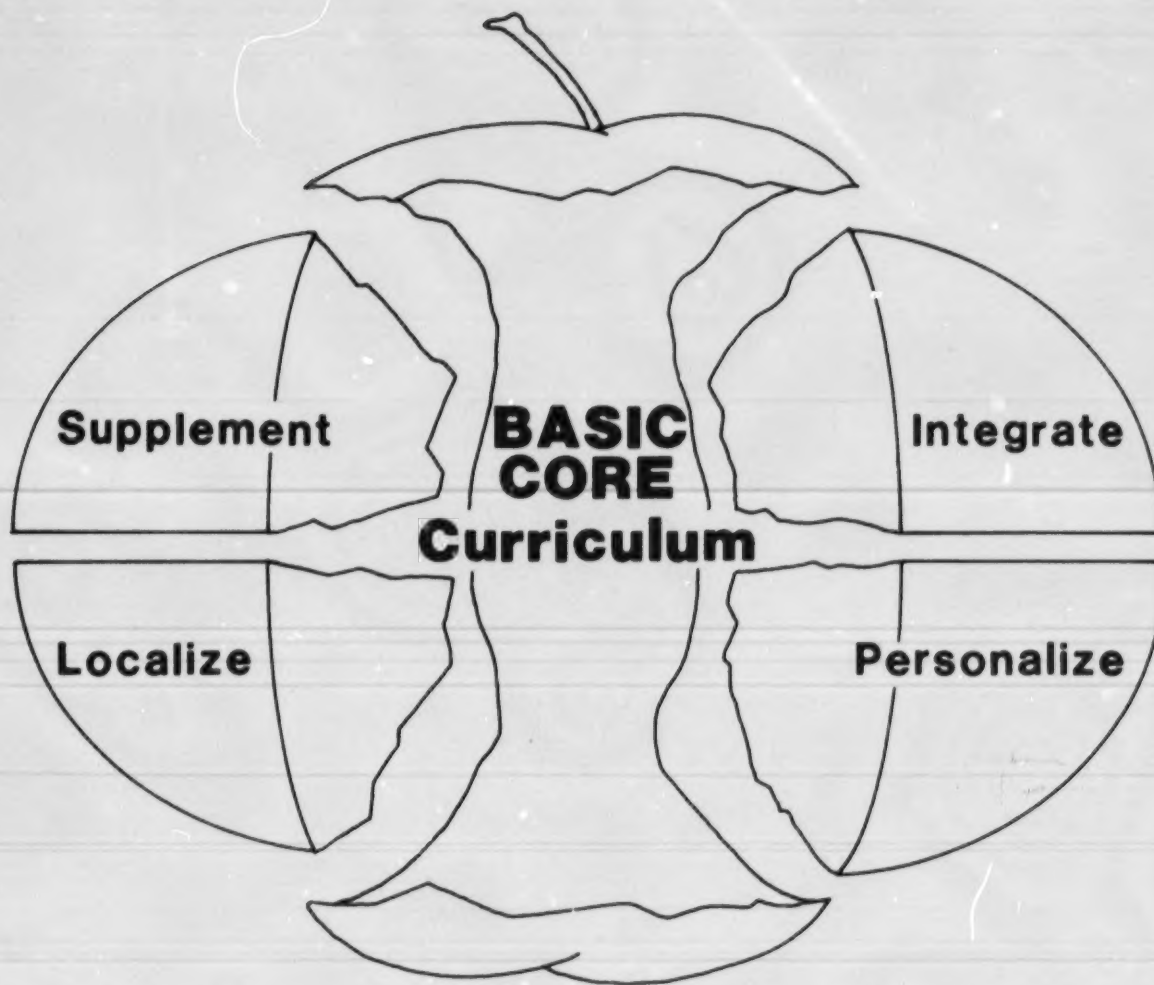
- I. Have you thought through and determined definitely:
 1. Why you are teaching this problem area? _____
 2. What your students should be able to do when they finish it? _____
 3. How well they should be able to do it? _____
 4. The important facts they need to know? _____
 5. The important skills they need? _____
 6. The interests, habits, and appreciations you want them to have? _____
- II. Have you planned how to introduce this subject? How to:
 1. Find out what they know about it? _____
 2. Get their interest and attention? _____
 3. Keep their interest? _____
 4. Show them the value of this subject? _____
 5. Get them active - thinking, writing, discussing? _____
 6. Let them know you are excited about this unit? _____
- III. Have you decided how to bring out the important facts which they don't know and skills which they don't have? How to:
 1. Help them find or discover these facts? _____
 2. Stress the most important facts? _____
 3. Demonstrate the important skills? _____
- IV. Have you planned how you will:
 1. Check each student to see whether he or she has acquired the facts you presented? _____
 2. Give them practice in applying these facts to real situations? _____
 3. Check each student to see whether he or she knows the steps and key points in the jobs you demonstrated? _____
 4. Give them practice enough to acquire the skills you demonstrated? _____
 5. Check, correct errors, and assist them? _____
- V. Have you planned how you will measure:
 1. How many students can do what you tried to teach? _____
 2. How well each student can do it? _____
 3. The important facts they remember? _____
 4. How well and to what extent they put into practice the knowledge, skill, ability, and attitudes they developed? _____

VI. Other considerations:

1. Have you put your plan in writing? _____
2. Have you checked to see whether you have the
books, references, and materials needed? _____
3. Have you determined how much time this unit
will take? _____
4. Did you get enough sleep last night? _____
5. Have you revised this plan a bit from last year? . _____

HOW TO USE THE CORE CURRICULUM ?

- 1. Develop courses to meet local needs.**
- 2. Select a "local core" from the Illinois Core.**
- 3. Include 60% core materials and 40% local materials in course outlines.**
- 4. Omit materials which do not apply.**
- 5. Localize the core packets for your community.**
- 6. Personalize the core packets for your students.**
- 7. Supplement the core packets with local materials.**



WHAT IS THE ILLINOIS CORE CURRICULUM ?

The Illinois Core Curriculum is a listing of those units and problem areas from which a local core curriculum could be developed in either a rural or an urban community.

TEACHER EDUCATOR'S GUIDE

I. Unit: Core Curriculum

II. Problem Area: Using the Core Curriculum to Develop Courses of Study

III. Objectives: At the completion of this problem area students will be able to:

1. Prepare a course of study by using Course Planning Forms I, II, III, and IV which are printed in the Core Curriculum Program Planning Guide.
2. Localize and supplement the core curriculum to meet the educational needs of high school students who will be enrolling in the agriculture program.
3. Identify and use advisory councils, community surveys and/or occupational surveys as a source of input in determining course content.

IV. Suggested interest approaches:

1. Promote class discussion and interest by asking the following lead questions:
 - a. How do teachers select course topics for a class?
 - b. Who should be involved in the development of course outlines?
 - c. What units or problem areas will you be teaching in the coming weeks to your classes?
2. Distribute copies of the core curriculum materials and let students become familiar with them. Ask students to select those problem areas in the core curriculum which can be used in their local programs. Discuss their selections and identify their reasons for accepting and rejecting various problem areas.
3. Ask class members to identify problem areas in Core I or II which do not apply to (1) their cooperating center or (2) their home high school. Ask them to identify additional problem areas not included in Core I which should be taught to freshmen in their cooperating school or home high school.

V. Anticipated problems and concerns:

1. Should I use all the core curriculum problem areas?
2. Should Core I only be used in my first year agriculture course?

3. How do I decide what problem area to teach?
4. What is meant by "localizing" the core curriculum?
5. What are some ways to obtain community input and help when planning a course of study in agriculture?
6. What procedure can I use to organize a sequential vocational agriculture program?
7. What are the state requirements for a vocational agriculture program which is to receive vocational funding?
8. What is meant by the following terms?
 - a. cross-sectional course of study
 - b. community survey
 - c. job analysis
 - d. occupational analysis
 - e. competency-based vocational education
 - f. needs assessment
 - g. sequential program
 - h. problem area
 - i. taxonomy areas of agriculture
 - j. sufficient length and intensity
 - k. exploratory - specialized
9. How should a problem area and unit be stated?
10. What are the characteristics of a good course of study?
11. How do I decide the units and problem areas to be included at each grade level?
12. What is seasonal arrangement of content and why is it important?
13. How can an advisory council be involved in the development of course outlines?

VI. Suggested learning activities:

1. Begin the instructional phase of this problem area with the following steps:
 - a. Develop class discussion on the topic of how teachers decide which subject matter to cover in their classes.
 - b. Discuss how to use advisory councils to help select course content.
 - c. Have students develop a community survey form and conduct a survey to determine local occupational needs and entry-level skills.

2. Use selected information sheets and transparencies along with student worksheets. Have students complete the forms using information obtained about their student needs and interests, community occupational survey and facility and staff limitations.
3. Use the program planning guides, and selected transparencies for information on planning and course of study. Suggest students consider a 60% core and 40% local content format.
4. If students have not had any instruction in the basic principles of curriculum development or curriculum terminology, build these areas into the teaching plan using references such as Handbook on Agricultural Education in the Public Schools by L. Phipps, articles from The Agricultural Education Magazine or other materials. Use Program Planning Assignments 1-5 for exercises in program planning.
5. Distribute and discuss sample course outlines from Illinois schools.
6. Develop and discuss basic principles of curriculum development for vocational agriculture programs. Use selected transparencies to promote discussion.

VII. Application procedures:

1. The main purpose of this problem area is to provide students with one method of developing a course of study which is based on the Illinois Core Curriculum.
2. This problem area also promotes the use of local advisory councils, community surveys and student needs in determining how to construct a localized sequential program which is based on essential occupational competencies and knowledge.
3. Students will apply what they have learned in this problem area when they start their teaching career and are confronted with the problem of planning or replanning courses of study.

VIII. Evaluation:

1. Collect and evaluate worksheet assignments.
2. Evaluate student progress in developing and conducting a community survey.
3. Evaluate students' ability to select and localize the core curriculum materials when developing a local course of study.
4. Evaluate other oral or written reports.
5. Construct and administer a pencil and paper test using the sample list of questions included with this problem area as one source of test items.

IX. References:

1. Illinois Rural Core Curriculum Notebooks
2. Illinois Metro Core Curriculum Notebooks
3. Rural Program Planning Guide
4. Metro Program Planning Guide
5. Core Curriculum Transparencies
6. Worksheets
7. Assignment sheets 1-4

PRINCIPLES OF CURRICULUM DEVELOPMENT

1. Design a vocational program which includes a sequence of courses which lead to entry-level employment or to further education.
2. Identify the major function of each course such as exploration, job preparation, general education, or preparation for higher-level courses.
3. At the ninth- and tenth-grade, level emphasize occupational and career orientation and exploration, basic plant and animal production, elementary shop skills, and leadership development through the FFA.
4. At the eleventh- and twelfth-grade levels, emphasize occupational preparation in specialized areas of agriculture. Consider semester courses which appeal to special interest groups.
5. Utilize a cross-sectioned approach to curriculum development when feasible. Usually ninth- and tenth-grade agriculture can be organized on a cross-sectioned approach.
6. In each course, schedule problem areas on occupational experience programs, FFA, orientation and guidance, and career development.
7. Supervised occupational experience programs should serve both as a source of problems for instruction and a laboratory for applying what has been learned at school.
8. Citizens' advisory councils should be utilized to help determine community needs and to suggest appropriate areas of instruction to be included in the program.
9. A master list of enterprises, units and problem areas to be taught during the four years of instruction together with suggested time allocations should be developed.
10. Problem areas should be stated in the verbal "ing" form such as "Selecting Breeding Ewes."
11. A problem area or unit of instruction should require from two to ten days (class periods) to complete.
12. An appropriate course title, a course description, and student performance objectives should be prepared for each course.
13. Problem areas should be assigned to the course or the year of instruction on the basis of the following criteria:
 - A. Difficulty of material
 - B. Opportunity for application by student
 - C. Readiness of student to learn
 - D. Necessity for prerequisite learning
14. Plan for 150-160 actual teaching days per year.
15. Schedule 25-30 problem areas per year.
16. Schedule those problem areas which are seasonal in nature (planting corn, growing bedding plants) or are related to a scheduled event (FFA Public Speaking Contest) before scheduling problem areas which can be effectively taught any month of the year.
17. Arrange agricultural mechanics instruction so that the shop is utilized throughout the school year.

INFORMATION SHEET

SUGGESTED COURSE ORGANIZATION FOR VOCATIONAL AGRICULTURE

1. Orientation/Exploration Courses (9th grade - full year)

Orientation to Vocational Agriculture and Orientation to Ornamental Horticulture.

2. Orientation (10th grade - full year)

Advanced Agricultural Occupations
Plant and Animal Science
Advanced Ornamental Horticulture

The above courses would involve the following as suggested subject-matter areas.

Career opportunities
Training in leadership and citizenship
Supervised occupational experience

Technology of growing plants and animals
Agricultural mechanics
Agricultural and enterprise management

Field trips, demonstrations, group activities, etc., should be scheduled to meet the needs of the students and their occupational objectives.

3. Skill Development Courses (11th and 12 grade - full year)

a. Cooperative Education in Agriculture and/or

b. In-depth full-year courses selected from the following:

1. Animal Science
Livestock Production
Livestock Management
Speciality Animal Production and Management

4. Ornamental Horticulture
Arboriculture
Floriculture
Greenhouse Operations
Landscape Design & Construction
Turf and/or Nursery Management
Floral Design

2. Crop Science
Crop Production
Crop Management
Speciality Crop Production and Management

5. Management
Agricultural Business Management
Farm Business Management
Soil and Water Management
Game and Wildlife Management

3. Mechanics
Agricultural Power
Electrical Wiring and Control
Agricultural Machinery Maintenance
Agricultural Construction

6. Other
Forestry

4. Supervised Occupational Experience. The program of instruction should combine and coordinate classroom instruction with field, shop, laboratory, cooperative work, apprenticeship, or other occupational experience which (a) is appropriate to the occupational or other objective of the instruction, (b) is of sufficient duration to develop competencies necessary for students to achieve such objectives, and (c) is supervised, directed or coordinated by persons qualified under the State Plan, and is an integral part of instruction in all courses offered.
5. Sequence of Courses. Plan for an orderly sequence of courses to allow students to achieve their vocational goals.
6. Credit. Amount of credit is a local concern. It is conceivable that a given class might have students receiving varying amounts of credit. Several schools are now offering extra graduation credit for supervised occupational experience programs.

STUDENT WORKSHEET
AUDIO-VISUAL AID ORDER LIST

I would like to order the following audio-visual aids from you to assist me in teaching vocational agriculture.

SOURCE: _____

SEND TO: (Your Name, School
 Address)

DATE NEEDED

1st Choice	2nd Choice	AUDIO-VISUAL AID
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Thank you very much.

_____ (your name)

Prod - A

INFORMATION SHEET

COURSE PLANNING SHEET

School Township High	Teacher Ag. Instructor
----------------------	------------------------

Courses Offered in the 19 -19 School Year

Grades	Course Number	Course Title and Description
9	101	INTRODUCTION TO AGRICULTURAL OCCUPATIONS Basic and exploratory agriculture students. Course materials cover agricultural production--supply and service--agricultural mechanics. The leadership and human relations--community service and citizenship programs are implemented through various FFA activities. All students will develop and maintain records on an approved S.O.E.P.

INFORMATION SHEET
COURSE PLANNING SHEET

School Township HighInstructor Ag. Instructor

Course titles:

1 Intro. to Ag. Occ. 4 _____

2 _____ 5 _____

3 _____ 6 _____

Allocation of Course Content by Courses

Courses

Units of Other Areas of Agriculture	1	2	3	4	5	6
	(Number of days)					
Orientation to Agricultural Occupations	15					
Leadership	20					
Supervised Occupational Experience Programs	25					
Soil Science and Conservation	10					
Livestock Science	30					
Agricultural Mechanics	35					
Crop Science	25					
Horticulture	10					

Total Days	170					

Instructor Ag. Instructor

Allocation of Course Content by Courses

Units of Other Areas of Agriculture

[illegible]

Instructor Ag. Instructor

Course One

Course Content: Allocation by Months

[illegible]

INFORMATION SHEET
COURSE PLANNING SHEET

School Township High Instructor Ag. Instructor

Course Introduction to Agricultural Occupations

Course Content--Allocation of Time to Problem Area
Identification of Key Knowledges and Skills

Units, Problem Areas (Coded or Abbreviated) Key Knowledges (What does the student need to know?) Key Skills (What does the student need to do?)	Days	
	22	
<u>Month (October)</u>		
Livestock Science:		
<u>Understanding the Livestock Industry:</u>	3	
Importance of the Industry, Trends in Local Community, Types of Industries in the Local Community and Illinois.		
<u>Feeding Livestock:</u>	7	
Digestive System, Nutrients, Using Pearson Square to Formulate Balanced Rations for Beef, Swine, and Sheep.		

INFORMATION SHEET
COURSE PLANNING SHEET

School Sterling Twp. Instructor Hort. Inst.

Course titles:

1 Introduction to Hort./Ag. 4 _____

2 _____ 5 _____

3 _____ 6 _____

Allocation of Course Content by Courses

Units or Other Areas of Agriculture	Courses					
	<u>1</u>	2	3	4	5	6
	(Number of days)					
<u>Orientation to Ag. Occupations</u>	20					
<u>Supervised Occ. Experience</u>	10					
<u>Leadership</u>	12					
<u>Horticulture/Agriculture Mechanics</u>	15					
<u>Plant Propagation</u>	24					
<u>Growing and Managing Crops</u>	35					
<u>Identifying and Controlling Greenhouse Pests</u>	20					
<u>Animal Science</u>	10					
<u>Soil Science and Conservation</u>	9					

Total Days	170					

Allocation of Course Content by Courses

[illegible]

INFORMATION SHEET

COURSE PLANNING SHEET

School Sterling Twp.

Instructor Hort. Inst. ✓

Course Content: Allocation by Months

[illegible]

Course Content--Allocation of Time to Problem Area
Identification of Key Knowledges and Skills

Units, Problem Areas (Coded or Abbreviated)	Days
Key Knowledges (What does the student need to know?)	
Key Skills (What does the student need to do?)	22
<u>Plant Propagation</u> <u>Month (Sept.)</u>	
<u>Seed Storage:</u>	2
Why, how, how long, where, chemicals, germination tests	
<u>Layerage:</u>	2
How, when, on what plants (3) Methods - Best on which plants	
<u>Division:</u>	1
Perennial Flowers that take division Why, how, best time of year Identifying plants needing division	

PROGRAM PLANNING WORKSHEET

ASSIGNMENT NO. 1

Plan a high school vocational agriculture program to be offered by your agriculture department. Assume that only one agriculture teacher is employed for the first four years.

Write a one paragraph description of your program. Identify the major goals or objectives for your program. Then briefly describe the taxonomic areas of concentration for your program.

COURSE PLANNING WORKSHEET

MAJOR UNITS

Course title and description: Introduction to Agribusiness and Agricultural Occupations

The first basic and exploratory agribusiness course offered to ninth-grade vocational agriculture students. Occupational information accompanies the two major science units and the mechanics and construction unit to help the student become occupationally oriented so that occupational and educational planning can be started. Human relations and leadership development are implemented through participation in FFA activities.

Assignment No. 2

The course content for the first introductory course in Vocational Agriculture is divided into five major units. Complete the table below by placing the number of periods that will be allocated to each of the major units. Plan for 165 teaching days. Assume that one teaching day is the same as a period and the approximate length of a period is one hour. (50 minutes)

<u>Major Units</u>	<u>Days</u>
I. Livestock science	_____
II. Plant and soil science	_____
III. Mechanics and construction	_____
IV. Human relations and leadership development	_____
V. Career planning	_____
Total	165

COURSE PLANNING WORKSHEET
INSTRUCTIONAL PROBLEM AREAS

Assignment No. 3

Develop a list of problem areas under each unit. Write each problem area under the units listed in Assignment No. 2. You will determine that 165 days when distributed among the units and problem areas will be used quickly. For many cases you will have no more than three days to allow for the problem area because that many days were allotted to the unit. In this case, restate the unit in the form of a problem area.

Problem areas should be stated as in the following examples:

- Selecting beef breeding animals
- Preparing the seedbed for sweet corn
- Sharpening cutting tools
- Developing parliamentary skills
- Starting a supervised experience program

Use Form II of "Course Planning for Vocational Agriculture." This assignment in course planning involves transferring instructional content from Assignment 2, identifying the problem areas, then determining which month to teach each problem area. Beginning with September, indicate when and how many days you will teach each problem area.

COURSE PLANNING WORKSHEET
MONTHLY CALENDAR OF KEY KNOWLEDGES AND SKILLS

Assignment No. 4

One final step is necessary which includes writing behavioral objectives under each problem area that reflect key knowledges and skills that the student must learn.

The course planner must recognize the importance of writing key behavioral objectives. This cannot be an exhaustive list. The teacher must list only those objectives that reflect key knowledges and skills that must be understood and developed, respectively, by the student.

Use Form III of "Course Planning for Vocational Agriculture," and select one unit as identified in Assignment 2. Then for each problem area listed under that unit write the key behavioral objectives. (You should have a minimum of two objectives for each day the problem area is to be taught.)

COURSE PLANNING FOR VOCATIONAL AGRICULTURE

Course Materials in Vocational Agriculture--Allocation by Months

[illegible]

COURSE PLANNING FOR VOCATIONAL AGRICULTURE

Course _____

Enterprise	Month
------------	-------

Unit:

Approx. No. of Days for Problem Area	Problem Area	Approx. No. of Days for Problem Area	Problem Area
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9
10	10	10	10
11	11	11	11
12	12	12	12
13	13	13	13
14	14	14	14
15	15	15	15
16	16	16	16
17	17	17	17
18	18	18	18
19	19	19	19
20	20	20	20
21	21	21	21
22	22	22	22
23	23	23	23
24	24	24	24
25	25	25	25
26	26	26	26
27	27	27	27
28	28	28	28
29	29	29	29
30	30	30	30
31	31	31	31
32	32	32	32
33	33	33	33
34	34	34	34
35	35	35	35
36	36	36	36
37	37	37	37
38	38	38	38
39	39	39	39
40	40	40	40
41	41	41	41
42	42	42	42
43	43	43	43
44	44	44	44
45	45	45	45
46	46	46	46
47	47	47	47
48	48	48	48
49	49	49	49
50	50	50	50
51	51	51	51
52	52	52	52
53	53	53	53
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89	89	89	89
90	90	90	90
91	91	91	91
92	92	92	92
93	93	93	93
94	94	94	94
95	95	95	95
96	96	96	96
97	97	97	97
98	98	98	98
99	99	99	99
100	100	100	100

[illegible]

**Grade
Level**

Course Titles

9

Introduction to Agr. Occupations

10

Basic Agr. Science and Practice

11

Advanced Agr. Science and Mechanics

12

Agricultural Business Management

and/or

12

Agr. Occupations Coop.

Figure 1. Proposed Program Model for a One-Teacher Agriculture Department in a Rural Area.

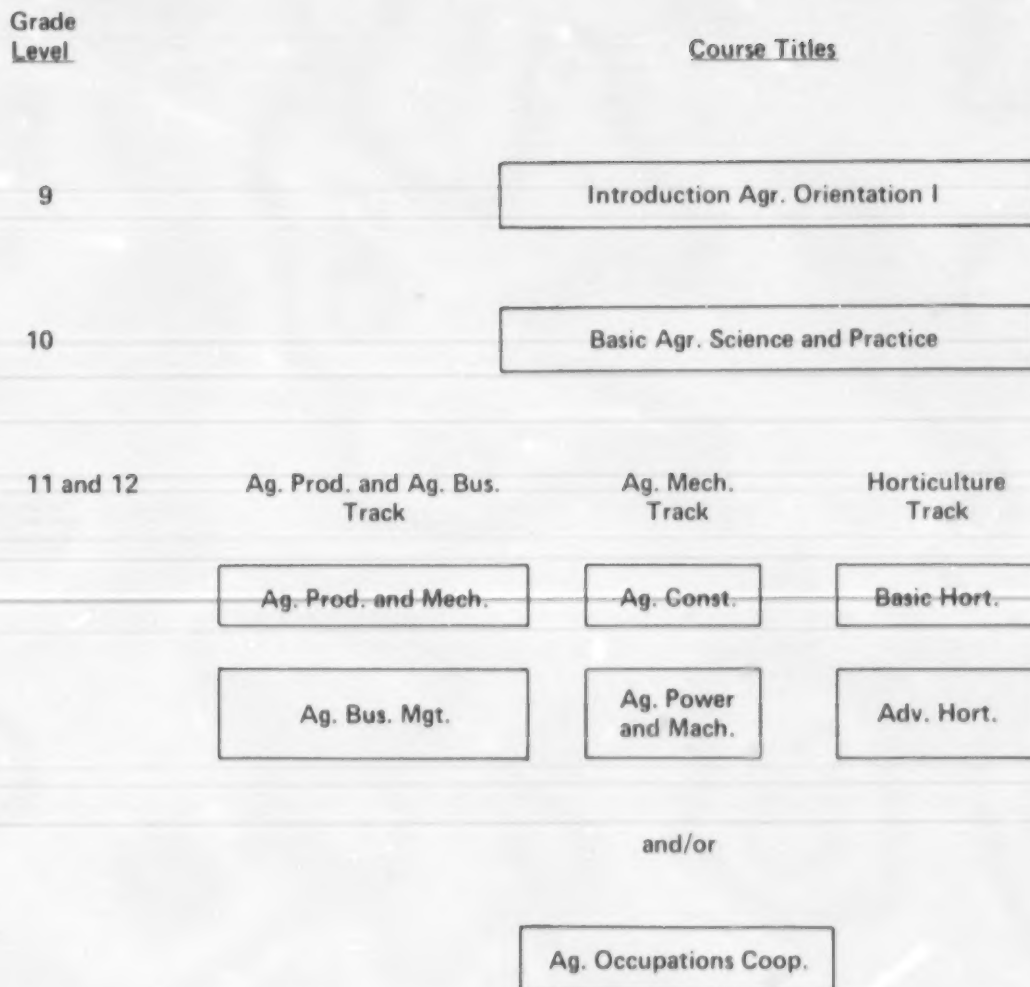


Figure 2. Proposed Program Model for a Multiple Teacher Department in a Rural Area.

MODEL I. A Metropolitan Horticulture/Agriculture Vocational Program in a Three- of Four-year Comprehensive or Vocational High School.

<u>Grade</u>	<u>Course</u>
9*	General Vocational Orientation and Career Exploration
10	Basic Plant and/or Animal Science
11	Advanced Plant and/or Animal Science
12	Cooperative Vocational Education

*In a three-year high school the Vocational Orientation course may be offered in the junior high school.

MODEL II. A Metropolitan Horticulture/Agriculture Vocational Program involving the Home High School and a Magnet School.

<u>Grade</u>	<u>Course**</u>
9	General Vocational Orientation and Career Exploration
10	Basic Horticulture/Agriculture
11	Advanced Horticulture/Agriculture
12	Cooperative Vocational Education

**Courses for grades 9 and 12 could be taken at the home high school, and courses for grades 10 and 11 could be taken at the magnet school.

MODEL III. A Metropolitan Horticulture/Agriculture Vocational Program involving the Home High School and an Area Vocational Center.

<u>Grade</u>	<u>Course</u>
9 at Home High School	Introduction to Urban Agriculture
10 at Home High School	Basic Plant and/or Animal Science and Practice
11 at Area Vocational Center	Advanced Ag. Science and Practice
12 at Area Vocational Center	Cooperative Vocational Education

MODEL IV. A Two-year Metropolitan Horticulture/Agriculture Vocational Program in an Area Vocational Center for Students with no Prior Preparation in Vocational Agriculture.

<u>Grade</u>	<u>Course</u>
11	Vocational Plant and Animal Science
12	Advanced Plant and Animal Science with Placement Employment (Coop)

MODEL V. A Metropolitan Horticulture/Agriculture Vocational Program in a Suburban High School with no access to an Area Vocational Center.

<u>Grade</u>	<u>Course</u>
9	Basic Plant and Animal Science
10	Basic Horticulture/Agriculture
11	Advanced Horticulture/Agriculture
12	Cooperative Vocational Education

PRINCIPLES OF CURRICULUM DEVELOPMENT

- 1. Design a vocational program which includes a sequence of courses which lead to entry-level employment or to further education.**
- 2. Identify the major function of each course such as exploration, job preparation, general education, or preparation for higher-level courses.**
- 3. At the ninth- and tenth-grade, level emphasize occupational and career orientation and exploration, basic plant and animal production, elementary shop skills, and leadership development through the FFA.**
- 4. At the eleventh- and twelfth-grade levels, emphasize occupational preparation in specialized areas of agriculture. Consider semester courses which appeal to special interest groups.**
- 5. Utilize a cross-sectioned approach to curriculum development when feasible. Usually ninth- and tenth-grade agriculture can be organized on a cross-sectioned approach.**

6. In each course, schedule problem areas on occupational experience programs, FFA, orientation and guidance, and career development.
7. Supervised occupational experience programs should serve both as a source of problems for instruction and a laboratory for applying what has been learned at school.
8. Citizens' advisory councils should be utilized to help determine community needs and to suggest appropriate areas of instruction to be included in the program.
9. A master list of enterprises, units and problem areas to be taught during the four years of instruction together with suggested time allocations should be developed.
10. Problem areas should be stated in the verbal "ing" form such as "Selecting Breeding Ewes."
11. A problem area or unit of instruction should require from two to ten days (class periods) to complete.

12. An appropriate course title, a course description, and student performance objectives should be prepared for each course.
13. Problem areas should be assigned to the course or the year of instruction on the basis of the following criteria:
 - A. Difficulty of material
 - B. Opportunity for application by student
 - C. Readiness of student to learn
 - D. Necessity for prerequisite learning
14. Plan for 150-160 actual teaching days per year.
15. Schedule 25-30 problem areas per year.
16. Schedule those problem areas which are seasonal in nature (planting corn, growing bedding plants) or are related to a scheduled event (FFA Public Speaking Contest) before scheduling problem areas which can be effectively taught any month of the year.
17. Arrange agricultural mechanics instruction so that the shop is utilized throughout the school year.